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ACTIVITY OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE

Permanent Committee of the Institute. — The winter session of the Permanent Committee will open on December 16. The Agenda deals with questions relating to the administrative and scientific activities of the Institute.

During this session, which, as usual, follows the meetings of the Committee on Publications and of the Committee on Finances, important questions will be discussed, that are connected with the programme of work of the different bureaus. This programme broadly indicates what are going to be the main lines of the Institute activity in 1942.

A summary of the work of this session of the Permanent Committee will appear in our next Chronicle.

The Institute Editions in 1941. — The activity of the Institute as regards publications continued normally in spite of present difficulties.

In 1941, the following periodical publications were issued: (1°) *International Yearbook of Agricultural Statistics 1940-41* – (2°) *International Yearbook of Agricultural Legislation 1940* – (3°) *International Review of Agriculture* – (4°) *Monthly Bulletin of Agricultural Economics and Sociology* – (5°) *Monthly Crop Report and Agricultural Statistics* – (6°) *Monthly Bulletin of Agricultural Science and Practice* – (7°) *International Bulletin of Plant Protection* – (8°) *International Bulletin of Agricultural Law* – (9°) *Collection of Texts of Laws* – (10°) *International Bibliography of Agricultural Economics*. Nor has the activity of the Institute slowed down in the matter of non-periodical publications. The summary in German of the volume on *World Trade of Agricultural Products* (Der Welthandel in Erzeugnissen der Landwirtscgaft-Übersicht über seine Entwicklung 1924-1938) gives a clear insight of the evolution of world trade in agricultural products during ten years. Furthermore, considering the great number and variety of its publications and in order to facilitate the utilisation of the information contained therein, the Institute has published an *Index décennal des publications éditées par l'Institut International d'Agriculture* (1930-39).

This Index is limited to publications in French. The Index for the publications in the English text is in preparation, and the issue of a German text for the use of German readers, is being considered. As regards the *World Agricultural Census of 1939-40*, the publication of results sent by some countries has been continued in the *Monthly Crop Report and Agricultural Statistics*. Here are the results published in 1941: (1°) Germany: *The 1939 Census of Agricultural holdings in Germany; The 1939 Census of Horticultural holdings in Germany*; (2°) Denmark: *Agricultural Census in Denmark in 1939*; (3°) United States: *The 1940 Census of the United States;* (4°) Norway: *The 1939 General Agricultural Census in Norway*; *The Census of greenhouses and nurseries in Norway in 1939*; (5°) Sweden: *The General Census of Agricultural in Sweden in 1937*.

The 5th Session of the Committee of the International Forestry Center. — The 5th Session of the C. I. S. took place at Baden-Baden on October 21 and 22, 1941, and was attended by the delegates of the adhering countries, by the representatives of the International Institute of Agriculture and by those of the Organisations associated with the C. I. S.

The Agenda of the meeting was the following: Report of the Director of the C. I. S. on activities from September 23, 1940, to September 10, 1941; Financial Report for 1940 and Report of the Société anonyme fiduciaire Suisse for the year 1940; Budget for the year 1942; Proposals for modifications of the Statutes of the Staff of the C. I. S.; Proposals for modifications in the subdivision of the Sections of the C. I. S.; Questions concerning the Staff; C. I. S. publications; Programme of work in 1942; Various.

The Representatives of the Institute did not fail to emphasise the importance of the meetings of the 5th session of the C. I. S. and to express their satisfaction for the active work accomplished by the Center in spite of the difficulties of the hour.

PUBLICATIONS OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE

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INTERNATIONAL BULLETIN
OF PLANT PROTECTION

1941 No. 12

DISCOVERIES AND CURRENT EVENTS *

BRAZIL.

Plant Diseases Observed in the State of São Paulo in 1939 and 1940 †

As a continuation of the earlier list referring to the years 1937 and 1938, published in this *Bulletin* (1940, No. 2, pp. 25-27), the following is a list of the diseases of cultivated or useful plants studied at the Laboratory of Plant Pathology of the Institute of Biology, São Paulo in 1939 and 1940. The diseases reported in the previous lists (see also this *Bulletin*, 1937, No. 12, pp. 269-275 and 1938, No. 3, pp. 49-53) again observed in 1939 and 1940 are not reported.

The determination of the parasites and diseases listed has been effected by the author of this communication together with the assistants of the aforesaid Institute: Messrs R. Drummond Gonçalves, S. C. Arruda, J. G. Carneiro, S. Gonçalves Silva and B. Pickel. The *Cercospora* were for the most part classified or confirmed by Prof. C. Chupp.

Sugarcane (*Saccharum officinarum* L.)	*Himantia stellifera* Johnson.
Quince (*Cydonia vulgaris* L.)	*Cercospora cydoniae* Rangel.
Cotton (*Gossypium* sp.)	*Colletotrichum gossypii* var. *cephalosporioides* Costa.
Dahlia (*Dahlia variabilis* (W.) Desf.)	*Entyloma dahliae* Syd.
Broad-bean (*Vicia faba* L.)	*Uromyces fabae* (Pers.) De By.
Fig (*Ficus carica* L.)	*Fusarium moniliforme* J. L. Sheldon.
Persimmon (*Diospyros kaki* L.)	*Colletotrichum gloeosporioides* Penz.
Sweet potato (*Ipomoea batatas* L.)	*Cercospora alabamensis* Atk.
Pecan (*Carya illinoensis* (Wang.) Koch)	*Cercospora fusca* (H. and W.) Rand.

* Under this and the next heading the countries are arranged in French alphabetical order.

† Communication from the official correspondent of the Institute, Mr Agesilau A. Bitancourt, Assistant Director of the Institute of Biology, Ministry of Agriculture, Industry and Commerce of the State of São Paulo, São Paulo, Brazil.

APPLE (*Pirus malus* L.)	*Fabraea maculata* Atk.
RAMIE (*Boehmeria nivea* Gaudich.)	*Cercospora krugiana* Müller and Chupp.
ROSE (*Rosa* spp. cultae)	*Peronospora sparsa* Berk.
TOBACCO (*Nicotiana tabacum* L.)	*Botryobasidium solani* (Pr. and Del.) Donk.
TOMATO (*Solanum lycopersicum* L.)	*Fusarium bulbigenum* Cke and Mass. var. *lycopersici* (Brushi) Wr. and R. *Phytophthora infestans* De By. *Bacterium lycopersici* Burg.
GRAPEVINE (*Vitis* spp. *cultae*)	'Coup de pouce' Physiological cause.
ACHRAS SAPOTA L.	*Elsinoë lepagei* Bitancourt and Jenkins.
AMARANTHUS HYBRIDUS L.	*Albugo bliti* De By.
AMBROSIA POLYSTACHYA DC.	*Elsinoë ractii* Bitancourt and Jenkins.
ANONA spp.	*Colletotrichum* sp. *Elsinoë anonae* Bitancourt and Jenkins.
ASCLEPIAS CURASSAVICA L.	*Puccinia concrescens* E. and E.
BAUHINIA sp.	*Uromyces dietelianus* Pazschke.
BLECHNUM SERRULATUM Rich.	*Elsinoë blechni* Bitancourt and Jenkins.
BIXA ORELLANA L.	*Cercospora bixae* Allesch.
BOEHMERIA CAUDATA Sw.	*Elsinoë boehmeriae* Bitancourt and Jenkins.
CALEA PINNATIFIDA Less.	*Elsinoë caleae* Bitancourt and Jenkins.
CARYOPHYLLUS AROMATICUS L.	*Cephaleuros virescens* Karst.
CISSUS SICYOIDES L.	*Schizonella colemani* Iyen and Nar.
CORDIA SELLOWIANA Cham.	*Elsinoë costai* Bitancourt and Jenkins.
EUPHORBIA PULCHERRIMA Willd.	*Cercospora pulcherrima* Tharp.
FIMBRISTYLIS ANNUA var. *DIPHYLLA* Roem. and Schlt.	*Cintractia axicola* (Berk.) Cornu.
ONCIDIUM VARICOSUM var. *ROGERSII*	*Hemileia oncidii* Maubl. and Rogers.
MYROCARPUS FASTIGIATUS Allem.	*Septobasidium saccardinum* (Rangel) Marchionatto.
PHYLLOCALYX LAEVIGATUS Berg.	*Caudella psidii* Ryan.

Sonchus oleraceus L.	*Septoria sonchi* Sacc.
Talisia esculenta Radlk.	*Elsinoë arrudai* Bitancourt and Jenkins.
Tournefortia spp.	*Elsinoë talisiae* Bitancourt and Jenkins.
Triumfetta semitriloba Jacq.	*Cercospora triumfettae* Syd.
Verbena bonairensis L.	*Elsinoë verbenae* Bitancourt and Jenkins.

LEGISLATIVE AND ADMINISTRATIVE MEASURES

Germany. — A Decree of August 27, 1941 gives the list of the provisions regarding plant protection, the validity of which has been extended to the eastern regions reunited to Germany on October 8, 1939. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. Oktober 1941, Bd. XIII, Nr. 7, S. 258-260).

*** Another Decree of the same date regards the protection of the eastern regions reunited to Germany against the introduction of the diseases and pests of cultivated plants.

The importation of conifers (genera *Abies*, *Picea*, *Pinus*, *Pseudotsuga* and *Tsuga*) elms (genus *Ulmus*), Canadian poplar (*Populus canadensis*) as also of carnation rooted plants and cuttings is prohibited.

Other plants and plant products, to be authorized for importation, should be accompanied by a phytosanitary certificate of origin testifying that the consignments in question are free from certain pests and diseases. Cherries, for example, should be free from the San José scale [*Aspidiotus perniciosus*] and the apple maggot [*Rhagoletis pomonella*], potatoes free from wart disease [*Synchytrium endobioticum*], etc.

§ 5 indicates the decrees and provisions regarding the control of grape phylloxera [*Dactylosphaera vitifolii*] which will be applied to the regions in question.

Experts for phytosanitary inspection will be nominated by the Minister of Agriculture. (*Ibid.*, S. 260-263).

Germany (Lorraine). — A Decree of September 5, 1941 adopts measures corresponding to those established in the Reich on October 29, 1937 and January 6, 1938 for the control of fruit pests and diseases [see this *Bulletin*, 1938, No 5, pp. 100-101 and No. 6, pp. 124-125]. (*Nachrichtenblatt für den Deutschen Pflanzenschutzdienst*, Berlin, Anfang Oktober 1941, 21. Jahrg., Nr. 10, S. 76).

Germany (Ostmark). — A Decree of August 28, 1941 comprises the provisions regulating the sale of pest control preparations containing thallium. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. Oktober 1941, Bd. XIII, Nr. 7, S. 264-265).

Germany (Sudeten Territory). — A Decree of July 25, 1941 requires the proprietors and exploiters of apple-trees of any species including stocks not yet grafted, to control the woolly aphis (*Schizoneura lanigera* = [*Eriosoma lanigerum*]).

The regulations established in this respect, also dated July 25, 1941, are as follows:—

In the autumn or on winter days without frost the branches and all other parts of trees with cankerous growths must be removed and destroyed by fire.

The trunks and large branches should be carefully scraped and brushed in order to discover the colonies of woolly aphis and to be able subsequently to coat these parts with linseed oil or any other control product regognized by the Plant Protection Service as being effective. If necessary, the upper part of the roots should be cleared of earth and dusted with lime, tobacco powder or treated with some other preparation recognized efficacious. The wounds caused by these treatments should be closed up with grafting wax or neutral vegetal tar.

The colonies which may eventually appear in spring must be immediately destroyed by any suitable control measure officially recognize as efficacious. The colonies which may form during summer on the trunk or branches will be treated in the same way. Should the occasion arise it will be necessary to have recourse to spraying. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. Oktober 1941, Bd. XIII, Nr. 7, S. 265-267).

Germany (Westmark). — By Decree of September 1, 1941 relative to the control of the European corn borer [*Pyrausta nubilalis*] the producers of maize seed living in a district where the control of the corn borer has been made compulsory, are required, on harvesting the ears, to cut the maize stalks as far down as possible and to destroy them or utilize them in such a way as to guarantee thorough destruction of the caterpillars of this pest which they may contain, for example by using them as forage or for ensilage. It is prohibited to plough under maize straw or to use it for covering over stacks of potatoes, etc. The cobs should be sold immediately for industrial utilization or else destroyed by fire. (*Amtliche Pflanzenschutzbestimmungen*, Berlin, 1. Oktober 1941, Bd. XIII, Nr. 7, S. 267-268).

Argentine Republic. — Ministerial Resolution No. 19.202 of March 1, 1941 establishes the control measures to be employed against 'vinal' (*Prosopis ruscifolia*) conformably to the provisions of Decree No. 85.584 of the same date [see this *Bulletin*, 1941, Nos. 7-8, p. 143]. (*Boletín Oficial de la República Argentina*, Buenos Aires, 15 de julio de 1941, año XLIX, núm. 14.069, pág. 3).

*** Decree No. 95.233 of July 8, 1941 authorizes the 'Junta Reguladora de Granos' to destroy the 1939-40 maize crop, belonging to the State, if considered of no use or as constituting a dangerous foçus for the propagation of crop pests. (*Ibid.*, 17 Julio de 1941, núm. 14.071, págs. 3 y 4).

Belgium. — A Decree dated October 10, 1941 establishes, *inter alia*, that in the regions considered suitable for the production of seed and seedlings grown under control, the General Office for the control of agricultural and horticultural seed and seedlings may employ protection measures and may impose the eventual destruction of plants the proximity of which constitutes a danger to the maintenance of healthy condition and purity of the varieties subjected to its control.

The General Office may authorize the cultivation of seed plants subjected to its control outside the aforesaid regions provided that to the seed or seedling growers are applied special measures which would be necessary for the protection of the health condition and purity of the seed and seedlings controlled.

The General Office communicates to the burgomasters of the communes concerned the names and addresses of the producers whose crops are subjected to its control and protection.

At the same time the said Office indicates the protection measures to be employed. (*Moniteur Belge*, Bruxelles, 15 octobre 1941, nº 288, p. 6828).

*** A Decree of October 15, 1941 regulates the sale of insecticides, fungicides, weedicides and all parasiticidal products whatever in general, intended for the prevention and control of plant diseases and pests.

These products can only be sold, held for the purpose of sale, offered in sale, transported for the purpose of sale or exchange, after preliminariy authorization granted by the Secretary General of the Ministry of Agriculture and Supplies, on certain conditions which he decides for each product such as it is described. All products authorized for sale are registered by the State Section of Phytopharmacy at Gembloux.

For the products at present obtainable on the home market, provisional sales permits will be granted, as a transient measure, up to December 31, 1942.

The official list of authorized products will be published regularly in the *Moniteur Belge*.

This regulation is not applicable to goods passing through the country nor to those intended for export, when the consignments in question are accompanied by documentary way-bills. In warehouses, etc., the goods intended for export should be clearly labelled 'Export Product'.

The Secretary General of the Ministry of Agriculture and Supplies establishes the methods of analysis for the products subject to this regulation. (*Ibid.*, 23 octobre 1941, nº 296, p. 7001-7005).

Chile. — Decree No. 49 of January 24, 1941 prohibits the dispatch to the South of Antofagasta of all plant material in the natural state, originating in the zone comprised between the northern limit of the country and Antofagasta inclusive, with the exception of certain specified products. (*Diario Oficial de la República de Chile*, Santiago, 25 de febrero de 1941, año LXIV, núm. 18,897, pág. 638).

Colombia. — By Decree No. 1123 of June 20, 1941, the ' Superintendencia Fomento Agrícola del Magdalena ' created by Decree No. 671 dated April 3 of the same year, will function under the supervision of the Ministry of National Economy.

The Division for the control of Sigatoka disease [*Cercospora musae*] will be incorporated in the new organization.

The ' Superintendencia ', *inter alia*, will deal with the organization and management of the national Bureaux relative to research work and studies on and official treatment for diseases as well as the supervision and control of treatments effected by private individuals or enterprises with which the Government will have come to an arrangement in the matter, and also the supply of apparatus and material.

The campaign against Sigatoka disease will be carried out by the national Government in the plantations at present subjected to official treatment, on the following conditions:

(1) that, according to the opinion of the technicians of the ' Superintendencia ', treatment would be justified economically taking into consideration the situation and probable production of the plantation;

(2) that the person concerned assures in favour of the Government the payment of the debt he owes in compensation of the services rendered him for the protection of his plantation.

The Government will contribute to the extent of 55 per cent. of the value of anticryptogamic products and other material necessary for accelerating the campaign for the control of Sigatoka disease, and also the total value of the costs involved in the organization and technical operations of the campaign.

The planter in whose favour the protection measures are carried out, will contribute to the extent of 45 per cent. towards the cost of anticryptogamic products and other material employed and also to the total expenses of day-labourers and to the management of control operations in his plantation according to the quota established for the use of the gangs which will be supplied to him.

With a view to facilitating extension of the campaign or assisting towards the upkeep of the existing plantations, the Government may grant to those banana-growers who so desire and whose plantations are situated in the zone under treatment, in accordance with the terms of the contract drawn up between the national Government and the Magdalena Fruit Company, the necessary loan to cover the amount they have to contribute towards the campaign or for the protection of their plantations.

The loans which may be enacted from the State by the banana-grower in the control of Sigatoka disease and those which the planter will contract with the Government in the future, will be covered or guaranteed by the value of his sales of bananas, not subjected to embargo, or all prizes for output or other future benefits.

The ' Superintendencia ' will regulate the expiration or annulling of the contract in force between the Government and the ' Cooperativa Bananera del Magdalena ' relative to the campaign for the control of Sigatoka disease. The

funds and material in possession of this organization, according to the clauses of the said contract, will be given up to the ' Superintendencia '. (*Diario Oficial*, Bogotá, 25 de junio de 1941, año LXXVII, núm. 24693, págs. 1019 y 1020).

*** Decree No. 1124, of the same date, fixes the total amount for the expenses of the said ' Superintendencia ' for the period from July 1 to December 31, 1941. (*Ibid.*, págs. 1020 y 1021).

Italy. — By Ministerial Decree of October 12, 1941 the wild rabbit [*Lepus* (*Oryctolagus*) *cuniculus*] is included among the animal pests of the territory of the Province of Ravenna. (*Gazzetta Ufficiale del Regno d'Italia*, Roma, 17 ottobre 1941, anno 82º, n. 246, p. 4137).

Rumania. — By Resolution No. 1.129 of the Council of Ministers, dated September 15, 1941, bunt (*Tilletia*) has been declared an infectious disease damaging to wheat.

All farmers who intend sowing wheat during the crop year 1941-42 are required to treat the seed with copper sulphate or any chemical preparation recognized and authorized by the Ministry of Agriculture and Domains. (*Monitorul Oficial* (Partea I), Bucureşti, 22 septemvrie 1941, anul CIX, nr. 224, pag. 5642).

RECENT BIBLIOGRAPHY

ABRAHAM, R. Erfahrungen in der Kartoffelkäfer-Bekämpfung. *Mitteilungen für die Landwirtschaft*, Berlin 1941, 56. Jahrg., Heft 32, S. 618-619, 3 Abb. [*Leptinotarsa decemlineata*].

ASS, M. J., und FUNTIKOW (†), G. P. Die Besiedlung künstlich geschwächter Bäume durch schädliche Insekten. *Zeitschrift für angewandte Entomologie*, Berlin 1941, Bd. XXVIII, Heft 1, S. [157]-179, Abb. 1-9. Literaturverzeichnis, S. 178-179.

BALDI, Guido Maria. Le problème de l'assurance contre les calamités naturelles. *Revue pour l'étude des calamités*, Genève, 1940, tome III, nos 8-9, p. [3]-24. [Deals, *inter alia*, with certain agricultural disasters].

BECKWITH, Charles S. Control of cranberry fruit worm on blueberries. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 169-171. [*Mineola vaccinii*].

BÉGUÉ, H., et RAUCOURT, M. La mesure de la vitesse de sédimentation dans les bouillies antiparasitaires. *Annales Agronomiques*, Paris, 1941, nouv. sér., 11e année, nº 1, p. [92]-108, fig. 1-3. Références bibliographiques, p. 107-108.

BELLIO, G. Esperimenti di lotta invernale con anidride solforosa contro la cocciniglia cotonosa (*Pseudococcus citri*) sulla vite. *Annali della Facoltà di Agraria di Portici della R. Università di Napoli* (*ex R. Istituto Superiore Agrario di Portici*), Portici, 1940-1941, serie terza, vol. XII, pp. [207]-240, figg. 1-6, tav. I-IV. Bibliografia, p. 239.

BERTHOLF, Lloyd M., and PILSON, Joseph E. Studies on toxicity to honeybees of acid lead arsenate, calcium arsenate, phenothiazine, and cryolite. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 24-33, figs. 1-4. Literature cited, pp. 32-33.

BLISS, C. I. Statistical problems in estimating populations of Japanese beetle larvae. *Journal of Economic Entomology*, Menasha, Wisconsin, 1934, Vol. 34, No. 2, pp. 221-232, figs. 1-6. Literature cited, pp. 231-232.
[*Popillia japonica*].

BORZINI, G[iovanni]. Una strana moria di piante di olivo. *Giornale di Agricoltura della Domenica*, Roma, 1941, anno LI, n. 32, p. 269, 1 fig.
[Decline is caused by several connected unfavourable conditions resulting from unbalanced fertilizer applications].

BOYCE, A. M., and BARTLETT, B[lair] R. Walnut husk fly control studies. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, p. 120-121.
[*Rhagoletis completa*].

BOYCE, A. M., and BARTLETT, Blair R. Lures for the walnut husk fly. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, p. 318. Literature cited.
[*Rhagoletis completa*].

BRANDÃO FILHO, José Soares. Meios de controle à "bacteriose" da mandioca. *Boletim do Ministério da Agricultura*, Rio de Janeiro, 1940, ano 29, núm. 7, pags. [11]-15.
[*Bacillus manihotus*].

BROOKS, J. W., and ALLEN, T. C. Tests of certain insecticidal dusts against the striped cucumber beetle. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 295-297. Literature cited, p. 297.
[*Diabrotica vittata*].

BREDEMANN, G. Ueber die Züchtung heuschreckenresistenter Pflanzen. *Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz*, Stuttgart 1941, 51. Jahrg., Heft 8, S. [337]-342.

BUTOVITSCH, Viktor. Studier över granbarkborrens massförökning i de av decemberstormen 1931 härjade skogarna i norra Uppland. *Meddelanden från Statens Skogsförsöksanstalt*, Stockholm 1941, Häfte 32, 1940-41, sid. [297]-360, fig. 1-12.
[In Swedish, with title and summary also in German: – 'Studien über die Massenvermehrung von *Ips typographus* in den vom Dezembersturm 1931 heimgesuchten Wäldern von Nord-Uppland'].

CAMPISI, Carmelo. Un nuovo metodo di lotta contro il *Phlœotribus scarabaeoides* Bern.-Fauv. Bari, Canfora & C., 1941, 24 pp. Cenni di letteratura specifica, pp. [23]-24.
[The method here suggested consists in attaching by means of zinc iron at a height of 5-6 metres and in the centre of each open space between four olive trees, a white enamel bowl, 25-35 cm. in diameter, filled with water, care being taken to keep it filled continually with clear water. These white receptacles filled with water, with their luminous reflecting power attract the beetle which falls into the water and dies].

CANZANELLI, A. Un sistema di raccolta autunno-invernale degli insetti. *Natura*, Milano, 1941, vol. XXXII, fasc. II, pp. [79]-83.

CASSIL, C. C. Derris residue on marketable cabbage. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 72-74. Literature cited, p. 74.

CATONI, Giulio. L'efficacia del Ramital è uguale a quella del solfato [di] rame. *L'Italia Vinicola ed Agraria*, Casalmonferrato, 1941, anno XXXI, n. 22, [337]-339.

CHAPMAN, P. J., PEARCE, G. W., and AVENS, A. W. The use of petroleum oils as insecticides. II. Some factors affecting the amount of oil deposited on apple bark in dormant spraying. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 207-212, figs. 1-3. Literature cited, p. 212.

CHAVAN, J-P. Comment éviter le piétin. *La Terre Vaudoise*, Lausanne, 1941, XXXIII^me^ année, n° 34, p. [389]-390.
[*Ophiobolus graminis*].

CHIAROMONTE, Alfonso. Gli insetti dannosi al cotone. *In:* FEDERAZIONE NAZIONALE DEI CONSORZI PROVINCIALI FRA I PRODUTTORI DELL'AGRICOLTURA. SETTORE DELLE FIBRE TESSILI – ROMA. Coltivazione, sgranatura e classificazione del cotone. Lezioni al corso di specializzazione per tecnici agricoli. Roma XVIII [1940]. Bologna, Anonima Arti Grafiche, XIX [1941], pp. [223]-313, 33 figg. [Deals with the chief insects harmful to cotton in East Africa where the author has carried out personal observations].

CIFERRI, R[affaele]. La Dalmazia e il piretro. *I Georgofili. Atti della R. Accademia dei Georgofili*, Firenze, 1941, sesta serie, vol. VII, disp. 3ª, pp. [413]-415. [*Chrysanthemum cinerariaefolium*].

COLE, Harvey E., and HOLCH, A. E. The root habits of certain weeds of southeastern Nebraska. *Ecology*, Lancaster, Pa., 1941, Vol. 22, No. 2, pp. 141-147, figs. 1-21. Literature cited, p. 147.

COSTAS, Luis Adolfo. The effect of varying conditions on oviposition by *Trichogramma* on eggs of Angoumois grain moths. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 57-58. Literature cited, p. 58. [*Trichogramma minutum* and *Sitotroga cerealella*].

CRAIG, F. Waldo. Observations on the periodical cicada. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 122-123. Literature cited, p. 123.
[*Magicicada septendecim*].

DEAN, R. W. Attraction of *Rhagoletis pomonella* adults to protein baits. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, p. 123. Literature cited.

DECOUX, L., ROLAND, G., SIMON, M., et VAUTHY, R. Etude des moyens culturaux de lutte contre la jaunisse de la betterave sucrière, effectuée en 1940. *Publications de l'Institut Belge pour l'Amélioration de la Betterave, Tirlemont-Belgique*, Renaix, 1941, 9me année, nº 3, p. [63]-82.
[With titles and summaries also in Flemish, German and English].

DRIGGERS, Byrley F. Three years' survey and liberation of Oriental fruit moth parasites in peach orchards in northern New Jersey. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 239-244. Literature cited, p. 244.
[*Grapholitha molesta*].

DUTKY, S. R. Susceptibility of certain scarabaeid larvae to infection by type A milky disease. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 215-216. Literature cited, p. 216.
[*Bacillus popilliae*].

DUTKY, S. R. Testing the possible value of milky diseases for control of soil-inhabiting larvae. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 217-218.
[*Bacillus popilliae* and *B. lentimorbus*].

FAHEY, Jack E. A study of clays used in preparation of tank-mix nicotine bentonite sprays. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 106-108. Literature cited, p. 108.

FASSING, W. W., and PIERPONT, R. L. Potassium soaps of a wood rosin and rosin residue as spreaders for nicotine, derris and pyrethrum in horticultural sprays. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 200-202. Literature cited, p. 202.

FAWCETT, G. L. La peste negra de los tomates y la corcova del tabaco. *Revista Industrial y Agrícola de Tucumán*, Tucumán, 1940, tomo XXX, núms. 10-12, págs. 221 a 226, figs. 1-3.
[A virus disease].

FAWCETT, G. L. La verrucosis de los cítricos. *Revista Industrial y Agrícola de Tucumán*, Tucumán, 1940, tomo XXX, núms. 10-12, págs. 227 a 229. figs. 1-3.
[*Sphaceloma*].

FELT, E. P., and BROMLEY, S. W. Major shade tree insects of 1940. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 180-181.

FROST, S. W. Transparencies for certain insect and plant material. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, p. 319, fig. 1.

FURNISS, R. L., and DOWDEN, P. B. Western hemlock sawfly, *Neodiprion tsugae* Middleton, and its parasites in Oregon. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 46-52. Literature cited, p. 52.

GÄBLER, Hellmuth. *Elateriden* - Larven als Feinde der *Nematus* - Kokons. *Anzeiger für Schädlingskunde*, Berlin 1941, XVII. Jahrg., Heft 5, S. 56-57, Abb. 1. Schrifttum, S. 57.

GÄBLER, Hellmuth. Unterschiede der Spiegelraupen der Nonne (*Lymantria monacha* L.) und des Schwammspinners (*Porthetria dispar* L.). *Forstwissenschaftliches Centralblatt*, Berlin 1941, 63. Jahrg., Heft 5, S. 110-112, 1 Abb. Schrifttum, S. 112.

GABOTTO, L[uigi]. La lotta antiperonosporica. Cura interna o esterna ? *Il Coltivatore e Giornale Vinicolo Italiano*, Casale Monf., 1941, anno 87°, n. 16, pp. [181]-182. [*Plasmopara viticola*].

GINSBURG, Joseph M. Experiments with chemicals on codling moth larvae in the dormant season. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 263-268. Literature cited, p. 268.
[*Cydia pomonella*].

GOETSCH, Wilhelm. Kolonie - Bildung bei Termiten. *Forschungen und Fortschritte*, Berlin 1941, 17. Jahrg., Nr. 16/17, S. 194-195, Abb. 1-4.

GOIDÀNICH, Gabriele. Le malattie del cotone. *In*: FEDERAZIONE NAZIONALE DEI CONSORZI PROVINCIALI FRA I PRODUTTORI DELL'AGRICOLTURA. SETTORE DELLE FIBRE TESSILI – ROMA. Coltivazione, sgranatura e classificazione del cotone. Lezioni al corso di specializzazione per tecnici agricoli. Roma XVIII [1940]. Bologna, Anonima Arti Grafiche, XIX [1941], pp. [149]-221, figg. 1-31. [The information and data here given on the disorders of the cotton plant produced by plant parasites, virus diseases, inorganic or unknown causes, and by nematodes, have for the most part been taken from foreign sources in view of the slight importance of cotton-growing in Italy at the beginning of modern phytopathological studies].

GÖSSWALD, Karl. Rassenstudien an der roten Waldameise Formica rufa L. auf systematischer, ökologischer, physiologischer und biologischer Grundlage. *Zeitschrift für angewandte Entomologie*, Berlin 1941, Bd. XXVIII, Heft 1, S. [62]-124, Abb. 1-9. Literaturverzeichnis, S. 120-124.

GÖSSWALD, Karl. Unterschiede im Jagdinstinkt ben den Waldameisenrassen. *Forstwissenschaftliches Centralblatt*, Berlin 1941, 63. Jahrg., Heft 6, S. 139-143. [*Formica rufa rufo-pratensis minor* and *F. rufa rufo-pratensis major* as regards *Diprion pini*].

GRANDORI, Remo. Presunta azione insetticida della calciocianamide per asfissia. *Bollettino di Zoologia Agraria e Bachicoltura della R. Università di Milano*, Milano, 1941, vol. X (1940), pp. [16]-42.

GRANDORI, Remo. Esperimenti di lotta contro insetti dannosi mediante cianamide e calciocianamide. *Bollettino di Zoologia Agraria e Bachicoltura della R. Università di Milano*, Milano, 1941, vol. X (1940), pp. [43]-72. Bibliografia, pp. 70-72. [*Musca domestica, Contarinia pyrivora, Tipula oleracea, Cydia pomonella, C. molesta, Lymantria dispar, Sminthurus* sp.].

GRANDORI, Remo. Cinque anni di lotta contro la *Cydia molesta* nel Mantovano. *Bollettino di Zoologia Agraria e Bachicoltura della R. Università di Milano*, Milano, 1941, vol. X (1940), pp. [139]-168.

GRAYSON, J. M., and SWANK, G. R. A laboratory method for testing fumigants: results with methyl bromide against the firebrat. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 65-67, fig. 1. Literature cited, p. 67.
[*Thermobia domestica*].

HADORN, Ch. Spätfröste, verregnete Blütezeit, Monilia Blüten- und Zweigdürre an Apfelbäumen. *Schweizerische Zeitschrift für Obst- und Weinbau*, Wädenswil 1941, 50. Jahrg., Nr. 17, S. [347]-350, Abb. 1-2.

HADORN, Ch. Die Frage der Kupferersatzmittel. *Schweizerische Zeitschrift für Obst- und Weinbau*, Wädenswil 1941, 50. Jahrg., Nr. 17, S. 351-352.

HAMILTON, Clyde C. Toxicity of methyl bromide to the common red spider and to greenhouse roses. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 232-237, figs. 1-6.
[*Tetranychus telarius*].

HANF, M. Versuche mit Frass- und Berührungsgiften gegen den nebligen Schildkäfer *Cassida nebulosa* L. *Anzeiger für Schädlingskunde*, Berlin 1941, XVII. Jahrg., Nr. 5, S. [49]-53.

HANSBERRY, Roy, and NORTON, L. B. Toxicity of several nicotine compounds to *Aphis rumicis* L. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 80-83. Literature cited, p. 83.

HARMAN, S. W., and GREENWOOD, D. E. Codling moth control studies in 1940. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 268-270. Literature cited, p. 270.
[*Cydia pomonella*].

HAWKINS, John H. *Septis* larvae attacking wheat and wild rice. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, p. 118.
[*Septis finitima* on wheat; *Septis* sp. on wild rice].

HAYWARD, Kenneth J. Lucha biológica contra las moscas de las frutas. Dispositivo que permite la salida de los parásitos beneficiosos del pozo donde se arroja la fruta atacada. *Revista Industrial y Agrícola de Tucumán*, Tucumán, 1940, tomo XXX, núms. 10-12, págs. 230 a 233, 3 figs.
[*Anastrepha*].

HEADLEE, Thomas J. Further studies of the relative effects on insect metabolism of temperatures derived from constant and variable sources. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 171-174, fig. 1. Literature cited, p. 174.

HOFFMANN, Clarence H. Biological observations on *Xylosandrus germanus* (Bldfd.). *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 38-42, figs. 1-2. Literature cited, p. 42.

HUFFAKER, Carl B. Egg parasites of the harlequin bug in North Carolina. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 117-118. Literature cited, p. 118.
[*Murgantia histrionica*].

HULEA, Ana. La pourriture des capitules de tournesol. *Académie Roumaine. Bulletin de la Section Scientifique*, Bucureşti, 1941, tome XXIII^ème, nº 10, p. [558]-[569], fig. 1-7. Bibliographie, p. [569].
[*Sclerotinia libertiana*].

HUMERY, R. L'état actuel de la lutte contre les fumées. *Revue pour l'étude des calamités*, Genève, 1940, tome III, nos 10-11, p. [149]-156.

HUTSON, Ray. Field spraying for control of grapeberry moth. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 102-105, fig. 1. Literature cited, p. 105.
[*Polychrosis viteana*].

ISELY, Dwight. Control of the common red spider on cotton. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 323-324. Literature cited, p. 324.
[*Tetranychus telarius*].

JENNY, J. Sparsames Spritzen. *Schweizerische Zeitschrift für Obst- und Weinbau*, Wädenswil 1941, 50. Jahrg., Nr. 16, S. 335-336.

JONES, George D. A new grape insect in Missouri. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, p. 321, fig. 1.
[*Rhabdopterus praetextus*].

KAGY, J. F., und MCCALL, G. L. Dust mixtures of a phenol salt for control of mites. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 119-120. Literature cited, p. 120.

KAUFMANN, O. Zur Biologie des Rapserdflohes (Psylliodes chrysocephala L.). *Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz*, Stuttgart 1941, 51. Jahrg., Heft 7, S. [305]-324, Abb. 1-12. Schrifttum, S. 324.

KAUFMANN, O. Epidemiologie und Massenwechsel des Rapserdflohes (Psylliodes chrysocephala L.). *Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz*, Stuttgart 1941, 51. Jahrg., Heft 8, S. 342-369.

KIRCHNER, Hans-Alfred. Versuche über den Einfluss der Futterverteilung auf die Entwicklung und Fruchtbarkeit von *Carausius (Dixippus) morosus*. *Anzeiger für Schädlingskunde*, Berlin 1941, XVII. Jahrg., Heft 6, S. [61]-63, Abb. 1. Schrifttum, S. 63.

KNECHTEL, Wilhelm K., si MANOLACHE. Constantin I. Observaţii asupra afidului *Doralina pomi* De Geer în România. *Viaţa Agricolă*, Bucureşti 1941, anul XXXII, nr. 8, pag. [225]-227, fig. 1-8.

KNOWLTON, George F. Boxelder bug feeding habits. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, p. 326.
[*Leptocoris trivittatus*].

KNOWLTON, G[eorge] F., and HARMSTON, F. C. Insect food of the chipping sparrow. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 123-124.
[*Spizella passerina arizonae*].

KOTTE, Walter. Krankheiten und Schädlinge im Obstbau und ihre Bekämpfung. Berlin, Verlag von Paul Parey, 1941, VIII u. 296 S., 193 Abb., 8 Farbtaf. Geb. 16 RM.
[The author places his long personal experience regarding the protection of fruit crops at the disposal of the fruit-farmer, the professor and the instructor in fruit cultivation and also the fruit industry in regard to parasitic control. A detailed review of the agents causing the damage to the different fruit crops serves as a basis for the description of the control methods and measures, main object of this book. An analytical key is given for the determination of the different pests and diseases. A bibliographical list indicates the chief works of interest].

LANGE, Jr., W. H., and MACLEOD, G. F. Metaldehyde and calcium arsenate in slug and snail baits. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 231-322, fig. 1. Literature cited, p. 322.

LANGFORD, George S. Status of Plant Quarantine and Inspection Section in the American Association of Economic Entomologists. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 13-16.

LANGFORD, George S., WHITTINGTON, F. B., and CORY, Ernest N. Additional studies on the value of traps in Japanese beetle control. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 237-239. Literature cited, p. 239.
[*Popillia japonica*].

LA RIVERO, Ira. Response of *Anabrus simplex* to temperature. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 121-122. Literature cited, p. 122.

LEYVRAZ, W. Lutte contre le mildiou en 1941. *La Terre Vaudoise*, Lausanne, 1941, XXXIII^me^ année, nº 33, p. 384-385.
[From experiments carried out during the 1941 season in Switzerland, it was found that all vines, if treated in time, can be preserved from vine mildew (*Plasmopara viticola*), even with concentrations lower than usual and provided that the lime content was slightly raised].

LIEBSTER, Günther. Beitrag zur Kenntnis des Bohnenkäfers *Bruchus rufimanus* Boh. und Versuche zu seiner Bekämpfung. *Landwirtschaftliche Jahrbücher*, Berlin 1941, 90. Bd., Heft 6, S. [917]-977, Abb. 1-2. Schrifttum, S. 975-977.

LINDGREN, D. L., and DICKSON, R. C. Fumigation of purple scale with hydrocyanic acid. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 59-64, fig. 1. Literature cited, p. 64.
[*Lepidosaphes beckii*].

LIVINGSTONE, G. M., and SWANK, G. R. Methyl bromide as a fumigant for pests of ornamental plants. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 75-76, fig. 1.

LLOSA BELAÚNDE, Carlos. La grama china. Un nuevo método de control. *Ministerio de Fomento. Dirección de Agricultura y Ganadería. Instituto de Altos Estudios Agrícolas del Perú. Estación Experimental Agrícola de La Molina. Circular N.º 58*, Lima-Perú, 1941, 16 págs., 5 figs. Bibliografía, pág. 16.
[*Sorghum halepense*].

MALENOTTI, Ettore. La lotta contro la Cydia pomonella. *L'Ortofrutticoltura Italiana*, Roma, 1941, anno IX, n. 8-9, pp. 6-7.

MALENOTTI, Ettore. Le sezioni fitosanitarie e la precisazione dei loro compiti. *Giornale di Agricoltura della Domenica*, Roma, 1941, anno LI, n. 35, p. [289].
[Deals with the 70 Phytosanitary Sections attached to the Provincial Agrarian Inspectorates of Italy. According to the author, the chief object, practically speaking, of these Sections is the personal intimate propaganda which reaches the farmer on his farm, on the spot where the plant diseases are manifest].

MARIANI, D. Ancora sul carbone o carbonchio del granoturco. *Il Bosco*, Milano, 1941, anno XVIII, n. 16, p. 4.
[*Ustilago maydis*].

MARIANI, D. Si può risparmiare molto solfato di rame e Ramital. *Il Bosco*, Milano, 1941, anno XVIII, n. 19, p. [1].

MARINI-BETTOLO, G. B. Il problema italiano degli antiparassitari. *Annali di Tecnica Agraria*, Roma, 1941, anno XIII, fasc. IV, pp. [79]-98. Bibliografia, pp. 96-98.
[Examines the studies carried out in Italy with a view to a reduced use of copper in agriculture based either on reduction in use (employing copper in more active forms) or on complete substitution by salts of other metals. Of the various attempts made, some show possibilities of development and even success].

MASI, L. Un nuovo *Eupelmus* parassita del *Dacus oleae* nella Cirenaica. (Hymen. Chalcididae). *Bollettino della Società Entomologica Italiana*, Genova, 1941, vol. LXXIII, n. 7, pp. 109-111.
[*E. martellii* sp. nov.].

METCALF, R. L., and KEARNS, C. W. The toxicity and repellent action of some derivatives of picramic acid and of toluenesulfonyl chloride to the greenhouse leaf tier. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 306-309. Literature cited, p. 309.
[*Phlyctaenia rubigalis*].

MEYER, Eckart. Ueber ein Schadauftreten von Sitona puncticollis Steph. *Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz*, Stuttgart 1941, 51. Jahrg., Heft 7, S. 324-330, Abb. 1-4. Schrifttum, S. 329-330.

MONTANDON, Raoul. Peut-on lutter efficacement contre les gelées de printemps ? *Revue pour l'étude des calamités*, Genève, 1940, tome III, nos 10-11, p. [131]-148. Bibliographie, p. 144-148.

MOORE, Joseph B., and FOX, Clarence C. Lygus injury to peaches in the Pacific Northwest and its prevention. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 99-101, figs. 1-2.
[*Lygus elisus*, *L. hesperus* var. *viridiscutatus* and *Lygus* sp.].

MOORE, J[oseph] B., GNADINGER, G. B., COULTER, R. W., and FOX, C. C. Control of Pacific mite and European red mite on apples. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 111-116. Literature cited, p. 116.
[*Tetranychus pacificus* and *Paratetranychus pilosus*].

MORRILL, Jr., A. W. Control of the potato flea beetle on shade-grown tobacco in Connecticut. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 291-295, figs. 1-2, Literature cited, p. 295.
[*Epitrix cucumeris*].

MÜHLE, E. Die Blattläuse der wichtigsten zur Samengewinnung angebauten Futtergräser. *Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz*, Stuttgart 1941, 51. Jahrg., Heft 8, S. 372-378. Schrifttum, S. 377-378.

NASH, K. B., and RAWLINS, W. A. Wireworm studies in several potato rotation system. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 287-290. Literature cited, p. 290.
[*Agriotes mancus, Cryptohypnus abbreviatus*].

NEUMANN, Hugo. Versuche über Beziehungen zwischen Phytophthora-Befall und Nachbaugrad bei einigen Kartoffelsorten. *Zeitschrift für Pflanzenkrankheiten (Pflanzenpathologie) und Pflanzenschutz*, Stuttgart 1941, 51. Jahrg., Heft 8, S. 370-371.

OLLRAM, F. Botrytis cinerea (Grauschimmel) am Rebschnittholz. *Das Weinland*, Wien 1941, 13. Jahrg., Nr. 8, S. 99-101, Abb. 1-3.

ÖSTERWALDER, A. Gelbe und rote Blätter an Apfel-bzw. Kirschbäumen im Juni und Juli. *Schweizerische Zeitschrift für Obst- und Weinbau*, Wädenswil 1941, 50. Jahrg., Nr. 16, S. [331]-335, 1 Abb.

PAPE, H. Eigenartige Blattbeschädigungen bei Hortensien. *Nachrichtenblatt für den Deutschen Pflanzenschutzdienst*, Berlin 1941, 21. Jahrg., Nr. 8, S. [57]-58, Abb. 1-3.

PAPI, Ugo. L'Institut international d'Agriculture et la lutte contre les calamités naturelles. *Revue pour l'étude des calamités*, Genève, 1941, tome IV, nos 12-13, p. [3]-13.

PEARCE, G. W., AVENS, A. W., and CHAPMAN, P. J. The use of petroleum oils as insecticides. I. Determination of the amount of oil deposited on apple bark in dormant spraying. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 202-206, figs. 1-2. Literature cited, p. 206.

PEPPER, Bailey B., and GARRISON, Carlton S. The performance of hybrid field corns under European corn borer conditions in New Jersey. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 281-284. Literature cited, p. 284.
[*Pyrausta nubilalis*].

PIACCO, R. La perizia preventiva per i danni grandine al riso. *Risicoltura*, Vercelli, 1941, anno XXX, n. 7, pp. 155-163. Note bibliografiche, p. 163.

RAINWATER, C. F., and BONDY, Floyd F. Combinations of insecticides for control of boll weevil and cotton leaf aphid. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 297-300. Literature cited, p. 300.
[*Anthonomus vestitus* and *Aphis gossypii*].

REINMUTH, E., und ENGELMANN, C. Der Einfluss der Pflanzzeit auf Zystenbesatz, Wachstum und Ertrag zweier in nematodenverseuchtem Boden angebauter Kartoffelsorten. *Landwirtschaftliche Jahrbücher*, Berlin 1940, 90. Bd., Heft 3, S. [519]-534, Abb. 1-6. Schrifttum, S. 534.

RIEDL, William A. Sulphur dusting for the control of psyllid yellows of potatoes. *University of Wyoming, Agricultural Experiment Station, Bulletin No. 245*, Laramie, Wyoming, 1941, 15 pp., 3 figs. Literature cited, p. 13.
[*Paratrioza cockerelli*].

RITCHER, P. O. Methyl bromide fumigation for destruction of the strawberry crown borer. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 67-72. Literature cited, p. 72.
[*Tyloderma fragariae*].

ROMEO, Antonino. I *Pleurotus* delle Ombrellifere. *Annali della Facoltà di Agraria di Portici della R. Università di Napoli (ex R. Istituto Superiore Agrario di Portici)*, Portici, 1940-1941, serie terza, vol. XII, pp. [327]-369, figg. 1-13. Bibliografia, pp. 367-369.
[The *Pleurotus* living on the Umbelliferae and belonging to one sole species, *Pl. fuscus* (Batt.) Bres., are to be considered as typical parasites].

ROSENSTIEL, R. G. Oviposition of the omnivorous leaf-tier. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, p. 255.
[*Cnephasia longana*].

RUSSO, Giuseppe. Le infestazioni di Platyedra gossypiella e la raccolta del cotone. *Giornale di Agricoltura della Domenica*, Roma, 1941, anno LI, n. 42, p. 352, figg. 2

SĂVULESCU, Tr[aian]. Etude systématique du genre Pythium en Roumanie. *Académie Roumaine. Bulletin de la Section Scientifique*, Bucureşti 1940, tome XXIII^ème^, nº 4, p. [198]-205, fig. I-V.
[*Pythium gracile, P. proliferum, P. vexans, P. de Baryanum, P. artotrogus*].

SĂVULESCU, Traian. Mana viţei de vie. Studiu monografic. *Academia Română. Studii şi Cercetări, LII*, Bucureşti, 1941, 214 pag., 55 fig., 10 pl. Bibliografie, pag. [203]-213.
[*Plasmopara viticola*].

SĂVULESCU, Traian. Herbarium mycologicum romanicum. Fasc. I—XXV. Index des genres, espèces, sous-espèces, variétés, formes, synonymes et des plantes hospitalières. *Institutul de Cercetări Agronomice al României. Metode, Îndrumări, Rapoarte, Anchete, Nr. 72*, Bucureşti, 1941, 87 pag.

SĂVULESCU, Tr[aian], SANDU-VILLE, C., HULEA, A., [şi] HULPOI, A. Starea fitosanitară în România în anul 1938-1939. L'état phytosanitaire en Roumanie au cours de l'année 1938-1939. *Institutul de Cercetări Agronomice al României. Metode, Îndrumări, Rapoarte, Anchete, Nr. 72*, Bucureşti, 1941, 106 pag., 4 fig., 2 hărţi.
[Title and text in Rumanian and French].

SCHAERFFENBERG, Bruno. Die biologische Bekämpfung des Maikäfers und seiner Larve mit *Beauveria densa*. *Anzeiger für Schädlingskunde*, Berlin 1941, XVII. Jahrg., Heft 5, S. 53-55. Schrifttum, S. 55.
[*Melolontha* and *B. densa*].

SCHELLENBERG, A. Die Bekämpfung der Reblaus. (Erfahrungen aus der Ostschweiz, insbesondere aus dem Kanton Zürich). *Schweizerische Zeitschrift für Obst- und Weinbau*, Wädenswil 1941, 50. Jahrg., Nr. 18, S. 365-370, Abb. 1-4.
[*Phylloxera vastatrix*].

SCHEUERMANN, W. Änderung der Lebensgewohnheit eines Unkrautes ? *Deutsche Landwirtschaftliche Presse*, Berlin 1940, 67. Jahrg., Nr. 39, S. 358, Abb. 496.
[*Senecio vernalis*].

SCHMIDT, Herta. Weitere Beizversuche an gärtnerischem Saatgut. *Landwirtschaftliche Jahrbücher*, Berlin 1940, 90. Bd., Heft 5, S. [697]-711, Abb. 1-6. Schrifttum, S. 711.
[*Cladosporium cucumerinum, Gloeosporium lagenarium*].

SCHOENE, W. J. Plant food and mealybug injury. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 2, pp. 271-274. Literature cited, p. 274.
[*Pseudococcus comstocki*].

SCHULTZ, Enrique F. Servicio de pulverizaciones contra las plagas de los cítricos. Nuevo equipo adquirido para esta fin. *Revista Industrial y Agrícola de Tucumán*, Tucumán, 1940, tomo XXX, núms. 10-12, pág. 220.

SCHWERDTFEGER, F. Forstlich bedeutsame Vorträge des 7. Internationalen Kongresses für Entomologie. Kritisches Sammelreferat. *Forstarchiv*, Hannover 1941, 17. Jahrg., Heft 17/18, S. [267]-278. Literatur, S. 278.

SCHWERDTFEGER, F. Zur Kenntnis der Kiefernschonungsgespinstblattwespe (Acantholyda erythrocephala L.). *Zeitschrift für angewandte Entomologie*, Berlin 1941, Bd. XXVIII, Heft 1, S. [125]-156, Abb. 1-17. Schrifttum, S. 155-156.

SELIGMANN. Pour l'unification des signes conventionnels en matière de calamités naturelles. *Revue pour l'étude des calamités*, Genève, 1940, tome III, nos 8-9, p. [48]-61, 1 fig.
[Certain agricultural disasters are also comprised].

SERVADEI, Antonio. Note pratiche sulla difesa delle piante. Due Tentredinidi dannosi alla rosa, *Ardis sulcata* Cam. e *Cladius difformis* (Panz.) Illig. *Rivista della R. Società Toscana d'Orticultura*, Firenze, 1941, anno 66.mo, vol. XXVI, nº, 5-6, pp. 108-109.

SHAW, Frank R. Bee poisoning: a review of the more important literature. *Journal of Economic Entomology*, Menasha, Wisconsin, 1941, Vol. 34, No. 1, pp. 16-21. Literature cited, pp. 20-21.

SIBILIA, C[esare]. Una malattia poco nota dell'olmo campestre. *Rivista della R. Società Toscana d'Orticultura*, Firenze, 1941, anno 66.mo, vol. XXVI, n.º 5-6, pp. 103-106, 1 fig. Lavori citati, p. 106.
[*Euryachora ulmi*].

SIGGERS, Paul V., and DOAK, K. D. The little-leaf disease of short leaf pines. *Southern Forest Experiment Station, Occasional Paper No. 95*, New Orleans, La., 1940, 5 pp., 2 figs.
[A disease due to unknown causes].

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BOOKS PRESENTED TO THE LIBRARY OF THE INTERNATIONAL INSTITUTE OF AGRICULTURE

Die **Betreuung** des Dorfes. Berlin, Verlag der Deutschen Arbeitsfront, s. d., 174 p. (Schriftenreihe «Lebensformen der Volkstumsarbeit »).

Burgdörfer, F. Krieg und Bevölkerungsentwicklung. München, J. F. Lehmann, 1940. 68 p. (Politische Biologie: Schriften für naturgesetzliche Politik und Wissenschaft. Hft. 12.)

Feuersänger, H. Der Pinzgauer Noriker verfasst unter Mitarbeit von Freiherr Felix von Ingenhaeff hrsg. vom Landespferdezuchtverband Alpenland Salzburg. Innsbruck, F. Rauch, 1941. 366 p. – Stammtafeln. (11 tabs. avec couverture).

Frisch, K. v. Aus dem Leben der Bienen. 3. Aufl. Berlin, J. Springer, 1941. X, 184 p. (Verständliche Wissenschaft, 1. Bd.).

Gley, W. Belgisch-Kongo als Wirtschafts- und Verkehrsraum. Würzburg, K. Triltsch, [1941]. 184 p. (Frankfurter geographische Hefte, 14. Jahrg. 1940, 1. Hft.).

Gori-Montanelli, Selvicultura e alpicultura. Faenza, Fratelli Lega, 1939. [9], 373 p.

Heideloff, H. Wandlung und Struktur der ländlichen Handwerkswirtschaft in Niedersachsen; ein Beitrag zur Darstellung funktioneller Zusammenhänge zwischen handwerklicher und bäuerlicher Wirtschaft, unter besonderer Berücksichtigung der Betriebsverhältnisse im Schmiedehandwerk. Oldenburg, G. Stalling, 1938, 157 p. (Wirtschaftswissenschaftliche Gesellschaft zum Studium Niedersachsens. Veröffentlichungen, Reihe A: Beiträge, Hft. 44.).

Hildebrand, H. Norwegischer Sprachhelfer für Landwirte. Neudamm, J. Neumann, [1941]. 89 p.

Jørgensen, H. [and] C. I. Blackburne. Glossarium Europae avium. København, E. Munkøgaard, 1941. 192 p.

Klapp, E. Lehrbuch des Acker- und Pflanzenbaues. Berlin, P. Parey, 1941. VIII, 366 p. (Deutscher Landbau; Lehrbuchreihe des Forschungsdienstes.).

Mattart, L. Cours d'agriculture; physique, agronomie, botanique, horticulture, arboriculture, élevage, plantes d'appartement, à l'usage de Degré supérieur des écoles primaires. Manuel de l'élève. 3ª éd. Namur, Ad. Wesmael-Charlier, 1939. 94 p.

Nicolaisen, N., [and] L. Scupin. Dauergemüse. Anbau, Ernte und Vorratshaltung. Wiesbaden, R. Bechtold, [1941], 63 p.

Latta, W. C. Outline history of Indiana agriculture. 1st ed. [Lafayette]: Purdue university 1938. 372 p.

Malagola, G. Metodo unico particolareggiato per allevamento api-regine selezionate ad uso di tutti i produttori di miele. Bologna, L. Cappelli, [1941]. 131 p. (Manuali Cappelli).

Roloff, E. A. Hermann Blumenau; ein deutscher Koloniegründer. Osnabrück, A. Fromm, [1941]. 71 p. (Schöpferische Niederdeutsche, 10. Bändchen).

Sobischek, J. Der Gemüsebau; die Kultur der wichtigsten Gemüsearten nach praktischen Gesichtspunkten dargestellt. Budweis, « Moldavia », [1941]. 196 p.

Volkert, E. Untersuchungen über Grösse und Verteilung des Raumgewichts in Nadelholzstämmen. Arbeit aus dem Institut für biologische Holzforschung der Universität Göttingen. Frankfurt am Main, J. D. Sauerländer, 1941. V, 133 p. (Schriftenreihe der Hermann-Göring-Akademie der deutschen Forstwissenchaft, Bd. 2.).

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